

ADAPTING TO CLIMATE CHANGE IN CHULA VISTA

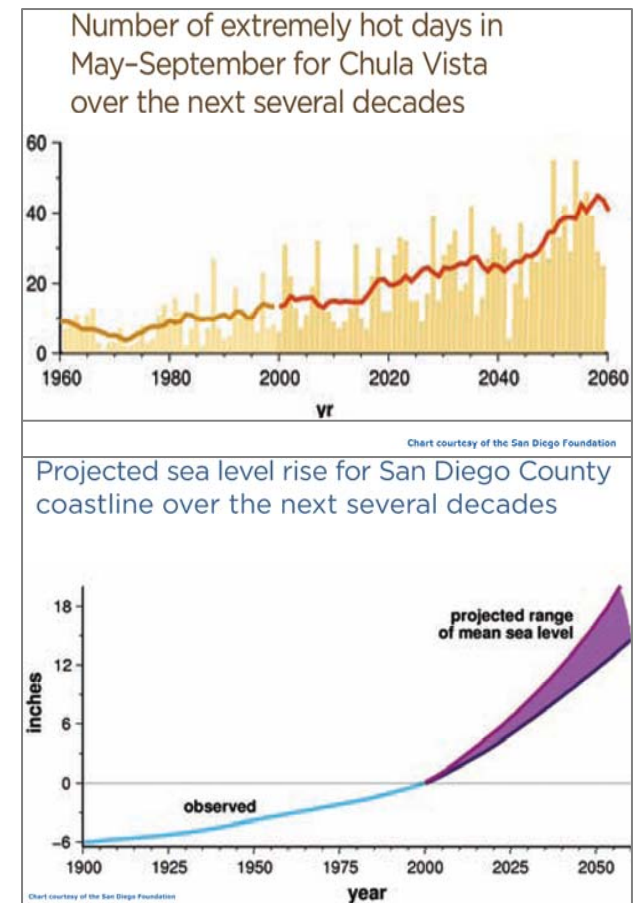


Climate Change Working Group
October 7, 2010



Background

- Climate change impacts despite current efforts
- Emerging focus on “adapting” to climate change
- Reduce future risks & costs
- City’s participation in international conference (May '09)
- City Council direction to develop *Climate Adaptation Strategies* through CCWG process (Oct '09)



Background

• Climate Change Working Group (CCWG)

<i>Focus Area</i>	<i>Stakeholder Representatives</i>
Water Management	William Granger/Rhianna Pensa – Otay Water District Sue Mosburg – Sweetwater Authority
Energy Management	Robert Friar/Larry James – Chula Vista Electric Andrea Cook – CA Center for Sustainable Energy Julie Ricks – San Diego Gas & Electric
Infrastructure & Resources	Nick Lee – Corky McMillin Company Sean Kilkenny – Otay Ranch Company
Public Health, Education, & Wildfires	Lynda Gilgun (Chair) – Education/RCC Trish Axsom/Terry Davis – Southwestern College Ana Melgoza – Independent Public Health Representative
Ecosystems & Biodiversity	Serge Dedina/Katie Westfall – WiLDCOAST Harry Orgovan – Chula Vista Kayak
Business & Economy	Richard D'Ascoli – Pacific Southwest Assoc. of Realtors & CV Chamber of Commerce Sassan Rahimzadeh – Arya Cleaners/RCC
Planning Process	Brian Holland – ICLEI Nicola Hedge – San Diego Foundation



• Supported by City staff from multiple departments

Climate Adaptation Planning Process

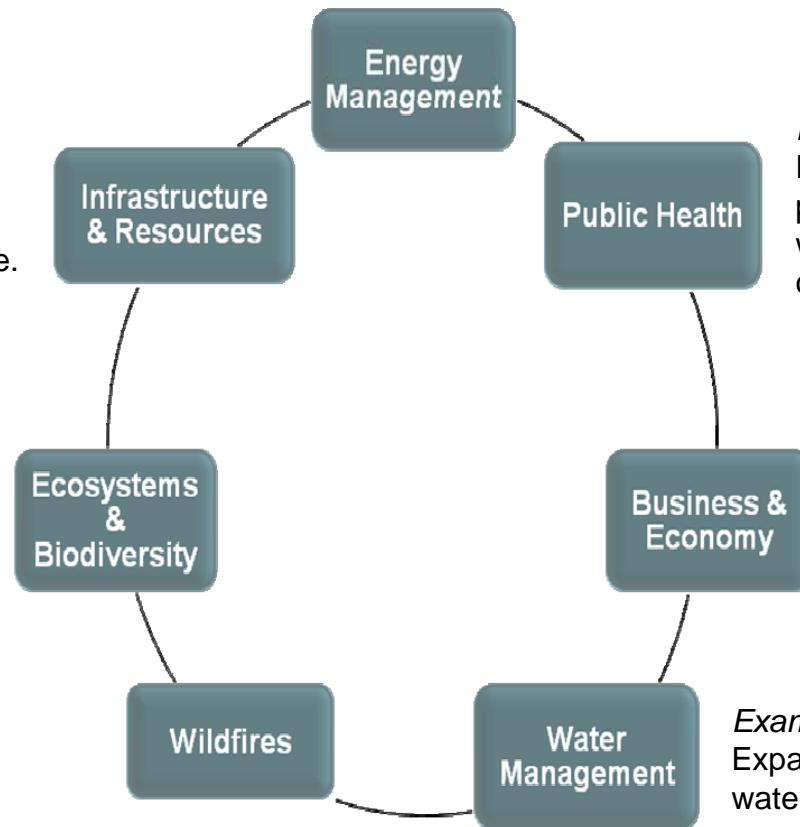
- CCWG tasked with developing recommendations

List of guiding principles

7 focus areas

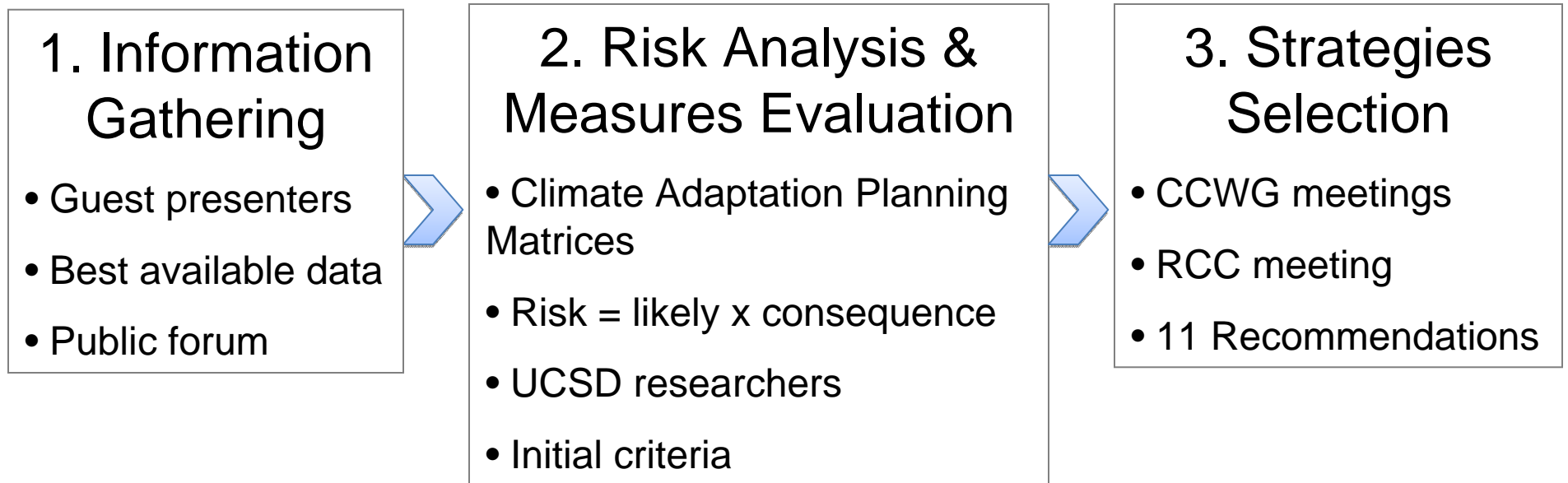
Example

Require all new coastal development to assess vulnerability to sea level rise.



Climate Adaptation Planning Process

- CCWG met 13 times (Dec – Sept) in public meetings
- 3 Planning Phases



Climate Adaptation Planning Process

Chula Vista Climate Change Impacts & Adaptation Options

ENERGY

IMPACT TO SAN DIEGO REGION		VULNERABILITY			ADAPTATION OPTIONS	CRITERIA		
		Pressure on Local Systems & Services	Risk*			City Jurisdiction?	Fiscally Feasible?	Complement Current Measures?
Average annual temperatures 1.5-4.5° F hotter, additional summertime warming	A	Higher peak demand and transmission inefficiencies in summertime (when cooling needs are greatest) make stable and adequate supplies increasingly challenging	HIGH Likelihood: 5 Consequence: 5 TOTAL: 25	1	Adopt a building energy rating and disclosure program	YES	YES	YES
				2	Require LEED or equivalent standards for residential, commercial, industrial projects to increase energy efficiency	YES	YES	NO (Duplicative)
				3	Promote on-site generation or energy storage (including thermal) to offset peak energy needs	YES	YES	NO (Duplicative)
				4	Establish a building retrofit program to reduce energy consumption during periods of peak demand	YES	YES	NO (Duplicative)
				6	Implement time-of-use or peak demand energy pricing (SDG&E already does for commercial and industrial customers)	NO	YES	YES
				7	Enroll all municipal facilities in demand response programs (if applicable)	YES	YES	YES
				8	Identify emergency centers as priorities for onsite renewable energy sources to reduce susceptibility to lapses in the conventional energy supply	YES	YES	YES
				9	Update emergency response plans to account for increased potential for black outs in summertime	YES	YES	YES
	B	Increasingly expensive energy costs expose vulnerable populations to expend higher proportion of income on energy	MEDIUM Likelihood: 5 Consequence: 3 TOTAL: 15	10	Develop outreach and incentives appropriate for energy efficiency/renewable energy upgrades in the rental market where there are split incentives for property-owner and electricity rate payer (renter)	YES	YES	NO (Duplicative)
				11	Target outreach of existing efficiency upgrade programs and incentives to low-income neighborhoods and small businesses	YES	YES	NO (Duplicative)
				12	Target urban heat island mitigation programs in low-income neighborhoods, who have proportionately harder time cooling homes	YES	NO	YES

*RISK = Likelihood of an Impact X Consequence of the Impact; each factor scored from 1 to 5 and overall risk was categorized as "Low" (1-7 total score), "Medium" (8-15 total score), and "High" (16-25 total score).

Development Timeline

Oct 20, 2009 - Council directs CCWG to develop strategies

Dec 9, 2010 - CCWG kick-off meeting (public meeting)

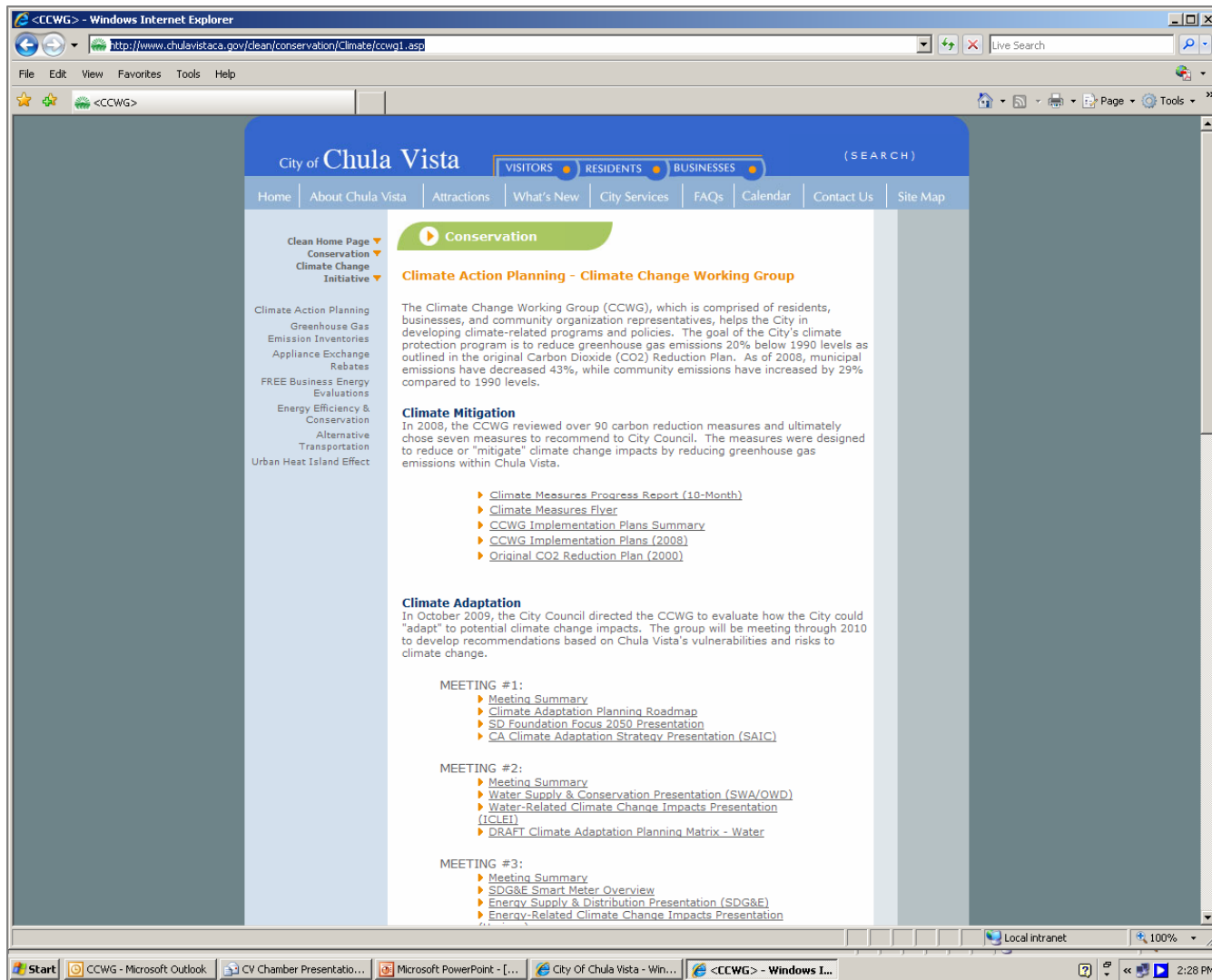
Jan – Aug, 2010 - CCWG evaluates options (public meetings)

June 16, 2010 - Public Forum (over 30 attendees)

Sept 13, 2010 - Public Forum/RCC meeting

Oct 7, 2010 - CCWG recommendations presented to Council

Additional Information



Under "Quick Links" at www.chulavistaca.gov/clean

Climate Adaptation Strategies

Vulnerability: Higher temperatures ('heat island') & peak energy demand



1. Develop an ordinance **incorporating reflective paving (or “Cool Paving”)** into all municipal paving projects (parking lots & streets) and new private parking lot projects (over a specific size).



2. Develop an ordinance **incorporating shade trees into all municipal projects (parking lots & streets) and new private parking lot projects** (over a specific size). The new ordinance should include a deviation for solar carports (or other shade structures), be complementary to existing free tree programs, and potentially be incorporated into the existing Landscape Water Conservation regulations.



3. Require and provide incentives (such as contributing to City's enhanced energy code requirements) for new residential development with air-conditioning systems to install **ENERGY STAR cool roof technology**.

Climate Adaptation Strategies

Vulnerability: Higher demand for local water supplies & concentrated pollutants in storm runoff



4. Educate residents and businesses about the benefits and appropriate uses of **local water supplies (including recycled water, groundwater desalination and onsite water reuse systems)** and further integrate recycled water (if available) and onsite water reuse systems into new development and redevelopment plans.
5. Revise the City's Stormwater regulations and applicable landscape/building codes to efficiently **manage higher concentrations of pollutants in runoff** by minimizing water waste, using natural landscapes which help drain or reuse runoff, and by ensuring that irrigation systems are properly installed/maintained.



Climate Adaptation Strategies

Vulnerability: More frequent wildfires & heat waves



6. Actively **educate the general public and the business community** about the impacts of climate change and what the community is doing to address impacts. In close coordination with the Fire Department, special emphasis should be given to using existing outreach mechanisms (Southwestern College's Services Learning program, Americorps/CERT training, and City environmental outreach programs) to expand public education on making homes more resilient to wildfires.



7. Include "**extreme heat**" events as a **significant emergency** in Chula Vista's Emergency Response Plan (short term) and its portion of the County's Multi-Jurisdiction Hazard Mitigation Plan (long term), and redefine "extreme heat" events with a special emphasis on serving vulnerable populations, supporting a robust network of "Cooling Centers", incorporating poor air quality day notifications, educating businesses about employee heat illness risks, and integrating renewable energy sources into emergency/cooling centers.

Climate Adaptation Strategies

Vulnerability: Loss of sensitive species/habitats & decreased recreational value



8. In order to assess and reduce impacts associated with climate change on parks and open space and their associated ecosystems, seek opportunities to partner with the Resource Agencies, non-profit organizations, and/or adjacent public land managers **to monitor and manage/restore ecosystems** (as funding becomes available) to ensure long-term habitat connectivity, species resilience, and community recreational opportunities.



9. When preserving or restoring coastal and riparian wetlands, **incorporate adequate upland or transition habitats to accommodate shifts in wetlands coverage and help ensure public access** due to sea level rise and other climate change impacts as informed by biological studies and Resource Agency consultation.

Climate Adaptation Strategies

Vulnerability: Higher flooding risk & increased pressure on local businesses



10. Use the outcome of the current San Diego Bay Climate Adaptation Study (being sponsored by the San Diego Foundation and ICLEI) to revise the City of Chula Vista's Land Development Ordinances (such as Grading Ordinance) and CEQA Guidelines to **incorporate climate change-related sea level rise & other flooding risks** into future development and municipal infrastructure projects' design and review.



11. **Provide assistance and non-monetary incentives to help businesses** manage climate change risks and to attract businesses that provide "green" products or services into Chula Vista.

QUESTIONS?

